

**Figure 1.**

SEQ ID NO:1

GCTCAAAGAGACATTTGGGGTGGCAAAATAGTCTACAGGATTCTATGGCATA  
GGAGACAACTCTCAGATAGCTCTGCAGACCTGCTCCAAAGAAGTATAGGAGAAG  
CCAGGATTATAAGAACTTTTTGTTGGGAAAATAATGAGTCACACATAAAAAG  
ACAACGTCAATAACAAACAATAGACATGTCAGAGATAATGACCTAGTGCCTTCT  
ATGTGTGGAAAGACTCAAGAATCTGGGTCAATTGAACTTTTCCCTAGATATGCA  
TCTTAATATCCTGGGTCACTATAATCCAAATGCTCCTGTTTCTCCATCCTAA  
AGTCCCCTCCGGTGCAGTGGTCCCTCCAGTGGCAACTGCAGTGGC  
AATTGGCTTGATCTCTGTAGAACTGGAATGGTGGCAACATTCTTCTTACAG  
TATCCTGAGTCTGGGAGGGGCTGTGAGGCCAGAGCCTG**N**ATGCAGGAGGAG  
GAGGGAGTCTGATCGCTTAGTCAGCTCTGCTTAACCTTGAGCTGGTGGTTAT  
AAGCTGGGCCAGGCGCCGAGGCCAGACTCACCTCATCAGGCCCTGCTGCA  
GTGGGAGCAGGGAGAGTAGCAGTGGTAGGGCAGCATG

**N = C or T at polymorphic site**

SEQ ID NO:2

### Forward primer:

**GCTCCAAAGAGACATTGGGGTGGC**

SEQ ID NO:3

### Reverse primer:

CATGCTGCCCTACCACTGCTACTCT

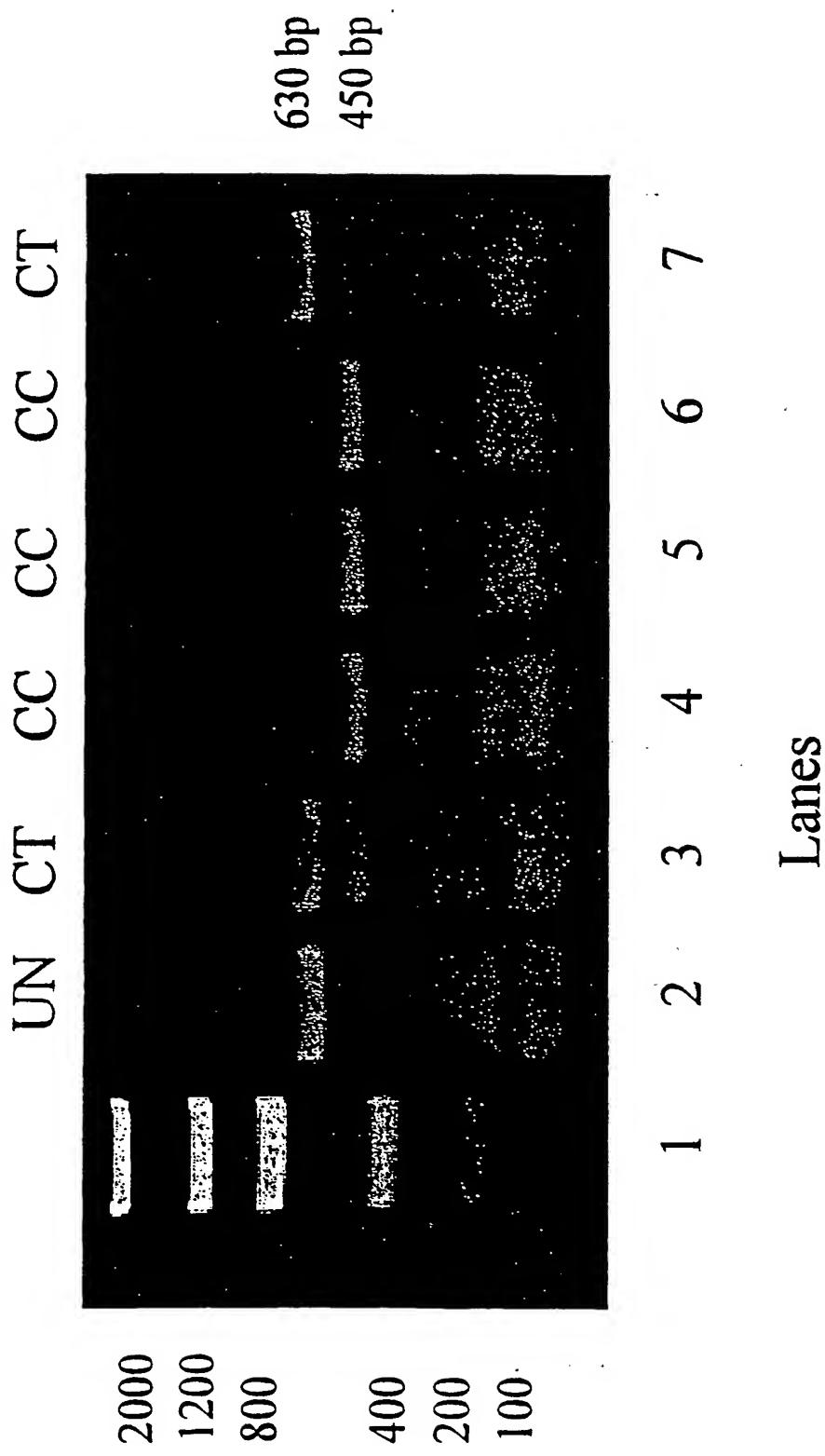
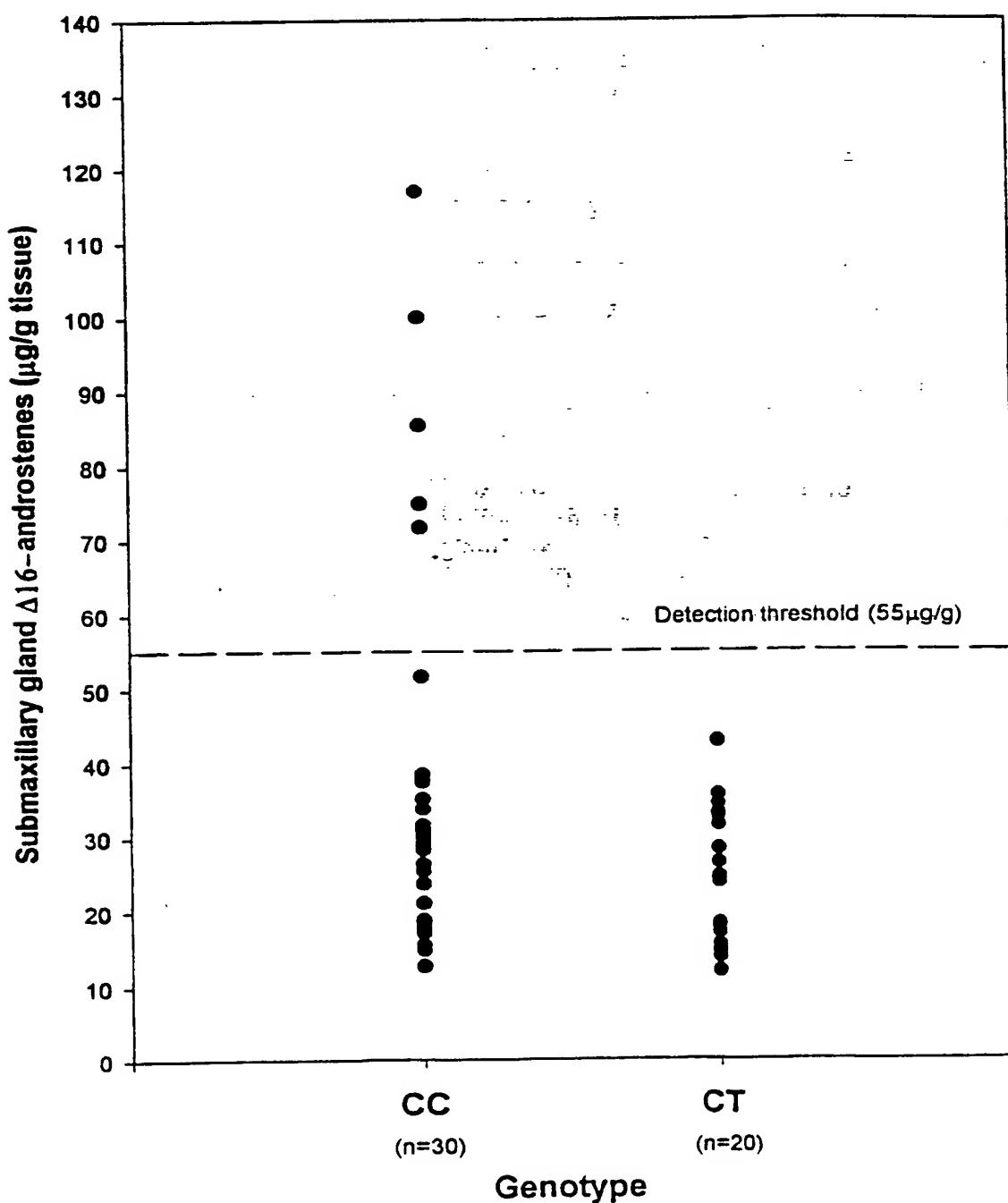


Figure 2. SphI restriction digest of porcine CYP11a1 PCR fragment

Figure 3. Comparison of submaxillary salivary gland  $\Delta 16$ -androstenes in boars possessing a CYP11a1 single nucleotide polymorphism.



## Genotype

	CC	CT	P value
<b>Rate of gain (kg BW/d)</b>	<b>0.76 ± .01</b>	<b>0.72 ± .01</b>	<b>.05</b>
<b>Carcass length (cm)</b>	<b>85.17 ± .38</b>	<b>82.96 ± .47</b>	<b>.001</b>
<b>Submaxillary salivary gland (SMG) wt (g)</b>	<b>92.1 ± 3.1</b>	<b>71.5 ± 4.9</b>	<b>.0001</b>
<b>Δ16- androstenes in SMG (μg/g)</b>	<b>38.7 ± 4.1</b>	<b>23.9 ± 5.0</b>	<b>.05</b>
<b>Relative SMG wt (g/kg BW)</b>	<b>0.72 ± .023</b>	<b>0.58 ± .027</b>	<b>.001</b>
<b>Bulbourethral gland length (mm)</b>	<b>128.8 ± 2.4</b>	<b>117.7 ± 2.9</b>	<b>.01</b>
<b>Relative bulbourethral gland wt (g/kg BW)</b>	<b>93.8 ± 4.0</b>	<b>73.5 ± 4.9</b>	<b>.01</b>
<b>Testis wt (g)</b>	<b>628.6 ± 27.1</b>	<b>530.2 ± 25.4</b>	<b>.05</b>
<b>Relative testis wt (g/kg BW)</b>	<b>4.92 ± .20</b>	<b>4.33 ± .24</b>	<b>.10</b>
<b>Serum testosterone at slaughter (ng/ml)</b>	<b>2.04 ± .28</b>	<b>1.59 ± .35</b>	<b>.32</b>

**Figure 4. Growth, carcass, and reproductive traits of pigs with CC or CT CYP11a1 polymorphism.**

1 gcagatgtcc ctgggtatcc ctgaaacagg ccctctgttt aaattcttca gcagtttagag  
61 ggaaggtcaa tttttcccaa ggctttggg ctttgattgt tttcattttt aaattatctg  
121 cattctaaag agatattttg ggtggcagat tttgtctcc tacaggactt tgtcttaggag  
181 acggctctca ggccagctcc gacgactgtt ccaaagaagt aaggaaaagc tagggtttat  
241 atcaatcttt tttttgtctg ggagaagggg gatgaacatg tagtcaaaca taaaaagatc  
301 actgctaatac ccaaacaaca gacaccaa gtgaatgggtt ttagtgtttt tctatataatg  
361 ttgttttagtc actaagtctt gtccgactct tttgcactc catagactgt agcccaccaa  
421 gtcctctgtt ccatgggatt tttctaggca agaatactgg agtgggttgc catttccttc  
481 tccctgggat cttcctaacc caaggactga accctgtct cctgcattgc aggtggattt  
541 tttaccgact gagccaccag ggaagttatg tggcaagaa tccggggta tggaaatttt  
601 cccttagata tacatcgat ctagggacca gtacaatgca aatgcttcct gttttcttc  
661 atcctgaagt ctcctcaggg tgcattgagg gagggagtcc cctcagggtgg gtgaccacag  
721 tggctgacgc ttgatgttgtt agaactggaa tggatgggtt cattctttcg tttacagtac  
781 tgagtctggg aggagctgtg tgggctggag tcagccggag gaggctgacc gcccgtcag  
841 ctttcactt agccttgagc tggtgattat aagctgggtc ccagggtccc agggccagag  
901 tcacacgtcg cagtacgagc agagacagca gcagctgtgg gggcagcatg ctaccaaggg  
961 ggcttccctt ccgttcagcc ctggtcaaag cttgtccacc catcctgagc tcagtgggg  
1021 agggctgggg ccaccacagg gtgggactg gagagggagc tggcatctcc acaaagaccc  
1081 ctcgcccccta cagttagatc ccctccctg gtgacaatgg ctggcttaac ctctaccatt  
1141 tctggagggaa gaagggtca cagagaatcc actttcgcca catcgagaac ttccagaagt  
1201 atggcccat ttacaggtaa gcctggcagg aggtgggg ctggcggat agggaaagcct  
1261 gtgggtggccc ctcctgaa aggtctgccc tcccttcca ggctctgtt cacctctgac  
1321 tttatatttctt ctcctgccc ggtggcagga gtagagttaa tgcttccag acagtgggtt  
1381 cacttccca cctgaggcc tcaacagttc ccggctcta cacccttaga aactttgggg  
1441 aggtggggag gcccagaaa ataagccccc g

FIGURE 5

1 cttttttcgg ttgtacctt gtctctgtac agatattttt taatatatta aaaacaaaaac  
61 ctactgagct cctcgccctt agcccaggat tcagggataa gaggcagggtc gccccggccg  
121 tgcggccccc tgctcccatg ctctccaggc ctgcacccat a诶cgggcagc tttcaggcat  
181 gccgctgtgc cggagggatc ccagccctcg cgggggtcca ctaccattt cccagctcct  
241 cgggagctcg gccttcgac caggtgcccgg gtgaatggag a诶cgggttgg ctcaacctgt  
301 accacttctg gaaggaggga ggcttccaca acgtgcacaa catcatggcc agcaagtcc  
361 agcgtttgg gcccattcac agggagaagt tgggtgtcta cgagagcgtg aatatcatca  
421 gcccccgca tgcggccacg ctcttcaagt cagagggat gctgcccggag cgcttcagcg  
481 tgccccatg ggtggcatac cgtgactacc gcaacaagcc ctacggcgtg ctccctaaga  
541 caggggaggc ctggcgctcg gaccgcctga ccctgaacaa ggaggtgctg tcgcccagg  
601 tggtgacag cttcggtcccc ttgctggacc aggtgagcca ggacttttgc cggcgggac  
661 gggcgcaggt ccagcagagc ggccgggagc gctggacggc cgacttcagc cacgagctct  
721 tccgctttgc cttggagttt gtgtgcacg tgctgtatgg ggaacgcctg gggctgctgc  
781 aggactttgt ggaccaggag gcacagcagt tcatcgacgc cgtcaccctc atgttccaca  
841 ccacccccc catgtctac gtggccaccccg ccctgtcccg ccaccccaac accaagacat  
901 ggcgtgacca cgtgcatgtc tggatgcca ttttccacaca ggctgacaaa tgtatccaaa  
961 acgttacccg ggacatccgg ctgcaacgcg agagcaccga ggagcacacg ggcateccct  
1021 tcagcctct tggcaggac aagctcccc tggatgacat caaggccgc gtcaccgaga  
1081 tggatggcggg cggcgtggac acgacttcca tggacttgcg atggggcatg ctggagctgg  
1141 cacgatcccc gggcatcccg gaggcgtgc gggcagggat gctggcagcc aaggaggagg  
1201 cacagggggg cagggtgaag atgttgcgaa gcatccgact gctcaaagcc gccatcaagg  
1261 agactctcag gctgcacccg gtggcggta cgttgcagag gtacaccaca caggagggtca  
1321 tcctgcagga ctaccgcattt ccccccaaga cgttgggtca gtttggcttc tacgccccatgg  
1381 gacgagaccc tgaggttttc cccaaaggccg agcagttcaa ccctgagcgc tggctgggtga  
1441 tgggctccaa gcacttcaag ggactgagct tgggtttgg gcaacggcag tggctgggtc  
1501 gtcgcacatcg cggagctggag atgcagctct tcctcatgca catcctggag aacttttaaga  
1561 tcgaaacccaa gcggggggtg gaagttggga ccaagttcgat cctcattttt gtcctgtaaa  
1621 aacccatcta cctgagactg cggccctcc agccccaggaa gtgacatggg gtgtccccag  
1681 ttggtccccag cttggggaca cttccatcag ctcagcgcattt ctagccttgg ctccagccct  
1741 tcttacgcga tggggggagat ggctgcccccc ttcccatttt cttcgccctt gatttgctct  
1801 gtaatttctg caccaaaaac

**FIGURE 6**